REMARKS

The title of the invention is amended to be clearly indicative of the invention to which the claims are directed. If further amendment to the title is believed necessary, the Applicant looks forward to any additional amendment the Examiner may care to make concerning the same.

The objection raised with respect to the Abstract of the Disclosure is overcome by the above requested Abstract amendment(s). If the any further amendment to the Abstract is believed necessary, the Examiner is invited to contact the undersigned to discuss the proposed change(s) to the same.

The claims are rejected, under 35 U.S.C. §§ 102 and 103, as being either anticipated in view of Walker `230 or obvious in view of Walker `230 and either Doustou, III et al. `872 or Lewis et al. `467. The Applicant acknowledges and respectfully traverses all of the raised rejections in view of the following remarks.

The amendments to the claims are made to distinguish the invention claimed from the art cited by the Examiner, in particular from the disclosure of Walker `230. Walker `230 is concerned with a computer memory storage system that comprises a multiplicity of subsystems each of which is provided in triplicate in order to provide a high degree of fault survival. The Walker `230 system is clearly very sophisticated and demanding in terms of the amount of hardware, and software required, and in cost. The present invention on the other hand seeks to provide significant computing power with good reliability in a much simpler and less expensive way, using readily-available, standard hardware and software.

The present invention is based on the recognition that the CPU motherboard within a PC has good reliability, and that lack of reliability in its use is more frequently due to failure of the power-supply unit of the PC. Accordingly, where PCs have been clustered to provide a high computing power, the reliability of the system as a whole, and therefore its computing capability, become dependent on the comparatively-low reliability of the power-supply units of the

individual PCs. The present invention avoids the problem of clustered PCs, by effectively removing the comparatively-reliable PC-CPU motherboards from their PCs and instead of powering them from the individual power-supply units of their PCs, combining them with a fault-tolerant power-supply unit. This gives the potential for a system having high computing power with good reliability using standard, relatively low-cost hardware.

New, independent Claim 13 specifies a system that includes a multiplicity of PC-CPU motherboards that are mounted together as a single unit with power-supply means that affords fault-tolerating redundancy. The CPUs 34 and 36 of the Walker `230 system are provided by host computer 35, and clearly not by PC-CPU motherboards. Walker `230's system is far more complex than the system claimed in Claim 13, in requiring a host computer having multiple CPUs.

It perhaps should be noted that Walker `230 refers, at lines 65-66, column 5, to the possibility of using a "less complex single CPU data processing system" in combination with the disk storage unit 38. However, if a single CPU data processing system were adopted in accordance with the Walker `230 suggestion, and even if in this context it were then obvious to reduce the level of complexity to that of a PC-CPU motherboard, the result would not be a computer system as specified in Claim 13; it would not meet the requirement of Claim 13 for a multiplicity of PC-CPU motherboards.

None of the other prior art made of record by the Examiner, in particular the additional cited Doustou, III et al `872 or Lewis, et al. `467, discloses a system as claimed in Claim 13 in which a multiplicity of PC-CPU motherboards are mounted together as a single unit with power-supply means that has fault-tolerating redundancy. Doustou, III et al. `872 discloses a system in which CPUs 159 are mounted on a motherboard 157, but does not disclose the mounting together of a multiplicity of PC-CPU motherboards. Similarly, Lewis, et al. `467 does not

disclose the essential features of Claim 13 in which a multiplicity of PC-CPU motherboards are mounted together as a single unit with fault-tolerating power-supply means.

Under the circumstances in which the feature of a multiplicity of PC-CPU motherboards mounted together, is absent from the teachings of each of Walker `230, Doustou, III et al. `872 and Lewis, et al. `467, it is submitted that the system of Claim 13 is patentable over such teachings under both 35 USC 102 and 103. Claims 14 to 17 are each dependent directly or indirectly on Claim 13 and are accordingly, directed to patentable subject-matter.

Independent Claim 18 specifies a multiplicity of processor modules each of which includes a PC-CPU motherboard, and a cabinet housing the processor modules side-by-side with one another and in combination with power-supply means affording fault-toleration redundancy. Since, as indicated above, Walker `230, Doustou, III et al. `872, and Lewis, et al. `467 do not teach, suggest or disclose the feature of combining a multiplicity of PC-CPU motherboards together in a single unit (or cabinet) with power-supply means having fault-tolerating redundancy, it is submitted that the system of Claim 18, and of each of its dependent Claims 19 to 24, is patentable both as regards novelty and not being obvious over the prior art.

Moreover, as indicated above, the system of each of Claims 13 to 24 has significant advantages over the prior art in regard to its high computing power and good reliability combined with economic advantage in the potential for utilization of readily-available, standard hardware.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the

Walker `230, Doustou, III et al. `872, and Lewis, et al. `467 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,

Michael J. Bujold, Reg. No. 32,018
Customer No. 020210
Davis & Bujold, P.L.L.C.
Fourth Floor
500 North Commercial Street
Manchester NH 03101-1151
Telephone 603-624-9220
Facsimile 603-624-9229
E-mail: patent@davisandbujold.com

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service, with sufficient postage, as First Class Mail in an envelope addressed to: Director of the United States Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. January 15, 2004 .

By:_____
Print Name: Michael J. Bujold